

**I. Rejection of Claims 1-3 and 11-13 under 35 U.S.C. §102**

The Examiner rejected Claims 1-3 and 11-13 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,684,871 to Devon *et al.* (Devon). Devon describes a system for encoding symbols based on the position of a signal characteristic, such as frequency, amplitude or phase, within a pulse position modulation frame. (Col. 2, lines 53-63) The location of the signal characteristic in the pulse position frame of time slots or spaces is used to encode a data symbol. A sync pulse identifies the start of a frame or group of windows within which a data bearing signal characteristic is located. The data is then decoded using prior art pulse position modulation techniques. Devon describes a system that uses only one window out of a frame of windows to encode data.

The Examiner states that Devon uses multiple pulses wherein each binary value is represented by more than one pulse in each "time slot" as evidenced by Figure 2. (Office Action, para. 6). The Applicant agrees that Devon describes using more than one pulse in a window but does not agree that Figure 2 illustrates the use of more than one pulse in a time slot. In pulse position modulation the time it takes to transmit a symbol is referred to as a frame, with each frame further divided into windows. (Col. 4, lines 40-43). It is well known to those of ordinary skill in the pertinent art that the window itself must be further divided into time intervals or slots in order to discriminate between pulses within a window. Furthermore, these time intervals or slots are located solely by time position and not by phase/time position. Devon provides only one signal characteristic per group of pulses, and therefore does not anticipate encoding data using multiple pulses distributed among a group of time slots each having a unique phase/time position.

Thus, Devon does not disclose each and every element of the claimed invention and, as such, is not an anticipating reference for independent Claims 1 and 11. Because Claims 2 and 3 are dependent on Claim 1 and Claims 12 and 13 are dependent upon Claim 11, Devon also cannot be an anticipating reference for Claims 2, 3, 12 and 13. Accordingly, the Applicant respectfully requests the Examiner to withdraw the §102 rejection with respect to these Claims.

## **II. Rejection of Claims 4-10 and 14-20 under 35 U.S.C. §103**

The Examiner rejected Claims 4-10 and 14-20 under 35 U.S.C. §103(a) as being unpatentable over Devon. As explained above, Devon does not disclose encoding a data element using multiple pulses distributed among a group of time slots where each slot has a unique time/phase position. Devon provides for a single data pulse transmitted within a single time slot. While Devon may provide for multiple time slots within a window of such slots, these slots are arranged solely by time and not by time/phase. Thus, because Devon only provides for one signal characteristic per time slot, it does not teach or suggest the present invention as recited in independent Claims 1 and 11 and their dependent claims, when considered as a whole. Claims 4-10 and 14-20 are, therefore, not obvious in view of Devon.

In view of the foregoing remarks, the cited reference does not support the Examiner's rejection of Claims 4-10 and 14-20 under 35 U.S.C. §103(a). The Applicant therefore respectfully requests the Examiner to withdraw the rejection.

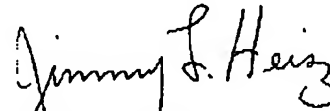
### III. Conclusion

In view of the foregoing amendment and remarks, the Applicant now sees all of the Claims currently pending in this application to be in condition for allowance and therefore earnestly solicits a Notice of Allowance for Claims 1-20.

The Applicant requests the Examiner to telephone the undersigned attorney of record at (972) 480-8800 if such would further or expedite the prosecution of the present application.

Respectfully submitted,

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